AMENDMENTS TO THE CLAIMS

Please cancel claim 20, such that pending claims 1-19 and 21-23 are as follows:

1. (Previously Presented) A microactuator for finely positioning a transducing head carried by a slider adjacent a select radial track of a disc, the microactuator comprising:

a microactuator frame having a stator and having a rotor which holds the slider and is movable with respect to the stator; and

means for limiting deflection of the rotor out of a plane defined by the microactuator frame.

2. (Previously Presented) The microactuator of claim 1 wherein the means for limiting deflection of the rotor comprises a beam structure operatively connecting the rotor to the stator so as to permit movement of the rotor with respect to the stator, the beam structure including a first beam pair element defining a rotation center and a second beam pair element arranged to restrain the rotor from twisting out of plane.

3. (Original) The microactuator of claim 2 wherein the first beam pair element comprises two first beam elements aligned with a width of the rotor.

4. (Original) The microactuator of claim 3 wherein the second beam pair element comprises two second beam elements, one length of each second beam element being aligned with a length of the rotor and a transverse length of each second beam element being aligned the width of the rotor.

5. (Previously Presented) The microactuator of claim 1 wherein the means for limiting deflection of the rotor is operable to limit deflection of the rotor out of a plane defined by the microactuator frame to less than one micron.

6. (Previously Presented) The microactuator of claim 1, and further comprising:

at least one deflection limiter for limiting deflection in the direction of the length of the rotor.

7. (Previously Presented) A microactuator comprising:

a rotor attached to a slider;

a stator; and

a beam structure operatively connecting the rotor to the stator so as to permit movement of the rotor with respect to the stator, the beam structure and the slider being aligned in a plane defined by the microactuator, wherein the beam structure limits deflection of the rotor out of the plane defined by the microactuator, the beam structure including a first beam pair element aligned with a width of the rotor and a second beam pair element aligned with a length and the width of the rotor.

8. (Previously Presented) The microactuator of claim 7 wherein the first beam pair element comprises two first beam elements.

9. (Previously Presented) The microactuator of claim 8 wherein the two first beam elements define a rotation center, the rotation center defining a center of in-plane rotation of the rotor.

10. (Previously Presented) The microactuator of claim 9 wherein the rotor is balanced about the rotation center.

11. (Previously Presented) The microactuator of claim 7, and further comprising:

a distal connector connecting a distal end of a magnet bonding pad and a slider bonding pad, wherein the distal connector is located at a rotation center.

12. (Previously Presented) The microactuator of claim 7 wherein the second beam pair element comprises two second beam elements in a dog-leg configuration, comprising:

a left lateral beam wherein one length is aligned with the length of the rotor and a transverse length is aligned with the width of the rotor; and

a right lateral beam wherein one length is aligned with the length of the rotor and a transverse length is aligned with the width of the rotor.

13. (Previously Presented) The microactuator of claim 12 wherein the second beam pair element is connected to the stator.

14. (Previously Presented) The microactuator of claim 12, and further comprising:

a proximal connector connecting the proximal end of the rotor and the second beam pair element.

15. (Previously Presented) The microactuator of claim 14 wherein the proximal connector is attached to the left lateral beam and the right lateral beam.

16. (Previously Presented) The microactuator of claim 7 wherein the beam structure has a height of approximately 200 microns.

17. (Previously Presented) The microactuator of claim 16 wherein the rotor stresses the beam structure to less than approximately 8.8% of its breaking strength.

18. (Previously Presented) The microactuator of claim 7 wherein the microactuator includes at least one deflection limiter for limiting deflection in the direction of the length of the rotor.

19. (Previously Presented) The microactuator of claim 18 wherein each deflection limiter comprises:

a hook formed in a slider bonding pad which supports the slider; and

a stop wall formed in the stator such that when the slider is longitudinally pulled away from the stator the hook engages the stop wall and prevents further movement of the slider.

20. (Canceled)

21. (Previously Presented) A disc drive having a recording disc rotatable about an axis, a slider supporting a transducing head for transducing data with the disc, and a dual-stage actuation assembly supporting the slider to finely position the transducing head adjacent a selected radial track of the disc, the dual-stage actuation assembly comprising:

a movable actuator arm;

a suspension assembly supported by the actuator arm, the suspension assembly including a flexure;

a slider bonding pad supporting the slider; and

a microactuator comprising:

a rotor attached to the slider;

a stator attached to the flexure;

a beam structure operatively connecting the rotor to the stator so as to permit movement of the rotor with respect to the stator, the beam structure including a first beam pair element aligned with a width of the rotor and a second beam pair element aligned with a length and the width of the rotor; and

a distal connector connecting a distal end of a magnet bonding pad and the slider bonding pad, wherein the distal connector is located at a rotation center.

22. (Previously Presented) A disc drive having a recording disc rotatable about an axis, a slider supporting a transducing head for transducing data with the disc, and a dual-stage actuation assembly supporting the slider to finely position the transducing head adjacent a selected radial track of the disc, the dual-stage actuation assembly comprising:

a movable actuator arm;

a suspension assembly supported by the actuator arm, the suspension assembly including a flexure;

a slider bonding pad supporting the slider; and

a microactuator comprising:

a rotor attached to the slider;

a stator attached to the flexure;

a beam structure operatively connecting the rotor to the stator so as to permit movement of the rotor with respect to the stator, the beam structure including a first beam pair element aligned with a width of the rotor and a second beam pair element aligned with a length and the width of the rotor; and

at least one deflection limiter for limiting deflection in the direction of the length of the rotor.

23. (Previously Presented) The disc drive of claim 22 wherein each deflection limiter comprises:

a hook formed in the slider bonding pad; and

a stop wall formed in the stator such that when the slider is longitudinally pulled away from the stator the hook engages the stop wall and prevents further movement of the slider.